

Remarks

Applicants thank the Examiner for the thorough review of the application and for the helpful suggestions.

Claims 1, 3, 6 and 8 have been amended. Claims 4, 5, 9 and 10 have been canceled without prejudice or disclaimer as they are drawn to the nonelected invention. Applicants reserve their right to pursue nonelected inventions in subsequent divisional applications.

I. Formal Matters

The Examiner objects to the title of the application as not being descriptive of the claimed invention. The title has been amended to more clearly be indicative of the invention to which the claims are directed. Therefore, Applicants respectfully request reconsideration and withdrawal of this objection.

The Examiner has asserted that the computer readable form of the sequence indicates that the instant application is a divisional of application serial number 09/077,951, now patent number 6,372,888 which claims priority to application number GB 9525474.4 filed December 13, 1995 and "GB 9603065 filed December 12, 1996," but that the bibliographic data sheet lists only one of the foreign documents and the first page of the instant specification does not list any of the foreign priority documents. Applicants respectfully submit that there is only one priority document, GB 9525474.4 filed December 1, 1995, and that the second application referred to in the sequence listing is the international application PCT/GB96/03065 filed December 12, 1996.

Applicants have inserted continuing data on page 1 of the specification to indicate that the instant application is a divisional of U.S. Application Serial No. 09/077951, now U.S. Patent No. 6,372,888, filed March 11, 1999, which is a national stage application of PCT/GB96/03065, filed December 12, 1996, and published June 19, 1997, as WO 97/21814, which claims priority of United Kingdom Application Serial No. 9525474.4, filed December 13, 1995. Enclosed herewith is a certified copy of the priority document (GB 9525474.4) as requested by the Examiner, and a copy

of the international application (PCT/GB96/03065), which was filed pursuant to 35 U.S.C. § 371(c)(2) in the parent case (U.S. Application Serial No. 09/077951).

In light of the amendment to the specification and the above remarks, the Examiner is respectfully requested to reconsider and withdraw this objection.

II. Claim Objections

Claim 1 was objected to because: a) the claim refers to Figure 1 instead of a specific sequence with corresponding sequence identifier, b) the claim does not end with a period, and c) the specific sequence for Rs-AFP2 is not recited.

Claim 1 has been amended to recite the specific sequence identifiers and now ends with a period.

Claim 6 was objected to because specific sequence identifiers are not recited for Rs-AFP2, Rs-AFP1, Rs-AFP3 and Rs-AFP4.

Claim 6 has been amended to recite the specific sequence identifiers.

In light of the amendments described above, Applicants respectfully request that the objections to claims 1 and 6 be withdrawn.

III. Specification Objections

The specification was objected to because “page 2, line 10, discloses ‘Rs-AFP1 (SEQ ID NO: 8)’ and page 10, line 19, discloses Rs-AFP1 (SEQ ID NO: 19),” which the Examiner found confusing. As the Examiner notes, page 10 contains the sentence, “Figure 2 shows the nucleotide sequence of the cDNA encoding Rs-AFP1 (SEQ ID NO: 19),” but it appears that this sentence is at lines 15-16 and not line 19. This sentence at lines 15-16 has been amended to clarify that SEQ ID NO: 19 is the cDNA sequence which encodes Rs-AFP1, which is SEQ ID NO: 8.

In light of this amendment, Applicants respectfully request that this objection to the specification be withdrawn.

IV. Information Disclosure Statement

The Examiner noted that references submitted with the information disclosure statements filed on December 4, 2001 and July 1, 2002 were not found in the application. Applicants have enclosed herein a copy of all references cited on both information disclosure statements. In preparing the references, the undersigned agent noted that citation to the reference, WO 93/10363, appears to be a mistake as this reference is drawn to an invention totally unrelated to the subject matter of the instant application. However, since the reference was filed in the parent application (09/077951) by the prosecuting attorney at that time, and was cited by the same attorney on the December 4, 2001 statement, it is enclosed herewith for completeness.

V. Rejections under 35 U.S.C. § 101

Claims 1 and 6 were rejected under 35 U.S.C. § 101 as being drawn to non-statutory subject matter. Particularly, it was asserted that claim 1 and 6 read on a product of nature. Claims 1 and 6 have been amended to recite “An isolated DNA sequence....” as suggested by the Examiner. In light of this amendment, Applicants respectfully request that this rejection be withdrawn.

VI. Rejections under 35 U.S.C. § 112, ¶ 2

Claims 1-3 and 6-8 were rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Particularly, the Examiner noted that claim 1 recited “selected form the group consisting of” instead of “selected from the group consisting of.” Claim 1 has been amended to correct the typographical error.

Claims 3 and 8 were rejected for the recitation of “A biological system including the DNA sequence” because it was alleged that it was unclear what other component is “included in the biological system such that the protein is expressed.” Claims 3 and 8 have been amended to recite “A biological system comprising the DNA sequence..., wherein said biological system is capable of expressing the encoded protein.”

Claims 1 and 6 were found to be indefinite because they lack antecedent basis for "Rs-AFP-2." Applicants have amended claims 1 and 6 to correct this typographical error as the claims should recite "Rs-AFP2". Support for this amendment can be found throughout the specification where only the Rs-AFP2 designation is used.

Claim 6 was alleged to be indefinite because it was not clear to the Examiner whether the three protein sequences, Rs-AFP1, Rs-AFP3 and Rs-AFP4 can have the mutated positions. Claim 6 has been amended to recite in part "...wherein said amino acid sequence of said antifungal protein contains at least one mutation selected from the group consisting of a basic residue at the position corresponding to position 9 in Rs-AFP2 (SEQ ID NO: 9), a basic residue at the position corresponding to position 39 in Rs-AFP2 (SEQ ID NO: 9), a hydrophobic residue at the position corresponding to position 5 in Rs-AFP2 (SEQ ID NO: 9) and a hydrophobic residue other than glycine at the position corresponding to position 16 in Rs-AFP2 (SEQ ID NO: 9)." Applicants respectfully submit that claim 6 clearly sets forth that Rs-AFP2 and the other three proteins, RS-AFP1, Rs-AFP3, and Rs-AFP4 can have the recited mutated positions.

In light of the amendments and the above remarks, Applicants respectfully request that the rejection of claims 1-3 and 6-8 under 35 U.S.C. § 112, ¶ 2 be withdrawn.

No new matter has been added by way of amendment. Therefore, Applicants respectfully request that the amendment be entered and receive favorable consideration. The Examiner is invited to telephone the undersigned agent if any questions or concerns arise during examination.

Respectfully submitted,



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